



Some examples of peripheral basins affected by the Messinian Salinity Crisis in the Eastern Mediterranean

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To study the impacts of the Messinian Salinity Crisis in the Eastern Mediterranean, several field trips were conducted in Turkey (Hatay basin), Syria (Lattakia basin), and Cyprus (Psematismenos Basin, Polemi and Mésooria basins). In all these basins, the presence of the Messinian Erosional Surface is the most important observation. The Messinian Erosional Surface (MES) shows two main characteristics: the first one is the stratigraphic position of the MES between the top of the Messinian Gypsum deposits and the bottom of Lower Pliocene deposits, or even later at the end of the Messinian period (Lago More episode). Actually, in some basins, notably in Syria and Turkey, the MES corresponds to fluvial canyons downcutting the Messinian gypsum deposits and older formations. In other basins, the Messinian gypsum deposits affected by karst flowpaths (filled by lower Pliocene deposits) shows the huge episode of sub-aerial erosion.

Several seismic profiles show the extension of the MES up to the abyssal plains.

Therefore, the MES corresponds to the same chronology and the same erosional processes than the one observed in the western Mediterranean. In the eastern Mediterranean, the MES formed after a collapse of the Mediterranean Sea level that occurred between 5.6 and 5.45 Ma.